CONTENTS OF VOLUME XXVII

Number 1.

Influence of the Replaced Rock on Replacement Minerals Associated with Ore Deposits ..... *B. S. Butler* 1

Temperature of Formation of the Ilmenite in the Engels Copper Deposits *J. W. Greig* 25

A Microscopic Study of Ores from the Campbell Mine, Bisbee, Arizona *G. M. Schwartz and C. F. Park, Jr.* 39

Covellite-Chalcocite Solid Solution and Ex-solution *Alan Bateman and S. G. Lasky* 52

Vein Filling during the Opening of Fissures ..... *Georg Berg* 87

Discussion and Communications:

Criteria of Age Relations of Minerals ..... *Henry H. Knox* 95

Reviews:

Lehrbuch der Erzmikroskopie, Vol. II (Schneiderhöhn and Ramdohr) *J. W. Gruner* 97

Bulgarische Kohle (Haberfelner and Müller) ..... *W. S. Bayley* 99

The Climax Molybdenum Deposit of Colorado (Butler and Vanderwilt) ..... *Augustus Locke* 99

Principles of Structural Geology (Nevin) ..... *Alan Bateman* 103

Oil and Sulphur Development in the Texas and Louisiana Gulf Coast Salt Dome Region ..... *D. C. Barton* 104

Books Received ..... *D. Gallagher* 105

Society of Economic Geologists 108

Scientific Notes and News 111

Number 2.

Magmatic Chromite Deposits in Southern Africa ..... *Edward Sampson* 113

A Pitchblende Silver Deposit, Great Bear Lake, Canada ..... *D. F. Kidd* 145

Early Discoveries of Petroleum in the United States ..... *H. B. Goodrich* 160

Chrysotile Asbestos: I, Chrysotile Veins ..... *S. B. Keith and G. W. Bain* 169

Secondary Concentration of Lake Superior Iron Ores: Additional Notes *John W. Gruner* 189

Editorial:

How the Kimberlite Pipes Serve to Reveal the Unknown *A. L. Du Toit* 206

Discussion and Communications:

Criteria of Age Relations of Minerals ..... *K. K. Landes* 211

Reviews:
The Biography of Mother Earth (Williams) .....*Alan Bateman* 212
Inspection of Oil Fields of United States and Argentina and Oil Prospects in Australia (Woolnough) .....*D. C. Barton* 214
Coral Reefs and Atolls (Gardiner) 214
Books Received .....*D. Gallagher* 215

Scientific Notes and News 217

Number 3.

The Outlook for Copper .....*Arthur Notman* 219
The Economic Relation of Geophysics to Geology on the Gulf Coast *J. Brian Eby* 231
The Ores of the N'Changa Mine and Extensions, Northern Rhodesia *G. C. A. Jackson* 247
Chrysotile Asbestos: II, Chrysotile Solutions .....*George W. Bain* 281
A Kennecott Type of Copper Deposit, Glacier Creek, Alaska *Alan M. Bateman* 297

Discussion and Communications:
The Annotated Bibliography of Economic Geology .....*S. H. Ball* 307

Reviews:
Studies of Geophysical Methods, 1928 and 1929 (Gilchrist, Mawdsley, et al.) .....*D. C. Barton* 308
German-English Geological Terminology (Jones and Cissarz) *W. S. Bayley* 309
Geology and Ore Deposits of Rouyn-Harricanaw Region, Quebec (Cooke, James, Mawdsley) .....*H. E. McKinstry* 309
A Descriptive Petrography of the Igneous Rocks (Johannsen) *Alan Bateman* 311
Witwatersrand Mining Practice (Watermeyer and Hoffenberg) 311
Books Received .....*D. Gallagher* 312

Scientific Notes and News 314

Number 4.

The Mufulira Copper Deposit, Northern Rhodesia .....*Anton Gray* 315
Geology of the Zinc-Lead Deposit at Pecos, New Mexico ...*Philip Krieger* 344
Prospecting for Oil in Australia and New Guinea .....*E. C. Andrews* 365
Mineralization in Northern Rhodesia .....*G. V. Douglas* 380
A Magnetite Vein of Abnormal Type .....*E. S. Moore* 387

Discussion and Communications:
The Research Program of the Illinois Geological Survey *M. M. Leighton* 391

Reviews:
Congrés International des Mines, de la Metallurgie, et de la Geologie Appliquée, Vime Session .....*W. S. Bayley* 395

Microscopic Characters of Artificial Minerals (Winchell) *Alan Bateman* 397
Petroleum in the United States and Possessions (Arnold and Kemnitzer) ..... *P. A. Krynine* 397
Handbook of Chemical Microscopy (Chamot and Mason) *Alan Bateman* 399
Science and First Principles (Northrop) 400
Prospecting for Gold (Idriess) .....*W. S. Bayley* 400
Books Received 401

Scientific Notes and News 403

Number 5.

Structures of the Wisconsin and Tri-State Lead and Zinc Deposits *C. K. Leith* 405
The Composition of Vein Solutions as Shown by Liquid Inclusions in Minerals .....*W. H. Newhouse* 419
An Aid in the Interpretation of Diamond Drill Cores .....*Edward Wisser* 437
Geology of the Zinc-Lead Deposit at Pecos, New Mexico: Part II *Philip Krieger* 450
Prospecting for Oil in Australia and New Guinea: Part II..*E. C. Andrews* 471

Discussion and Communications:
Secondary Concentration of Lake Superior Iron Ores ..*Stephen Royce* 487

Reviews:
Petrography and Petrology (Grout) .....*W. V. Howard* 493
The Geology of Malaya (Scrivenor) .....*Alan Bateman* 494
An Introduction to Geology (Scott) .....*W. S. Bayley* 494
A Text Book of Mineralogy (Dana-Ford) .....*Alan Bateman* 495
An Introduction to the Mathematics of Map Projections (Melluish) .. 495
The Universe Unfolding (Baker) 496
Stratigraphy of Plains of Southern Alberta (Symposium) *W. S. Bayley* 496
Books Received .....*D. Gallagher* 496

Scientific Notes and News 499

Number 6.

The Veins of Casapalca, Peru .....*H. E. McKinstry and J. A. Noble* 501
Effect of Geophysics on Development Hazard in Gulf Coast Oil Fields *E. E. Rosaire and M. E. Stiles* 523
Microscopic Criteria of Hypogene and Supergene Origin of Ore Minerals *G. M. Schwartz* 533
Genesis of the Ilmenite Deposits of St. Urbain, County Charlevoix, Quebec *Joseph L. Gillson* 554
Occurrence and Distribution of Precious Metals in the Montana and Idaho Mines, Ruby, Ariz. .....*H. V. Warren and R. W. Loofbourow* 578

Discussion and Communications:
A Curious Occurrence of Tungsten Rings in Platinum Concentrate
P. J. Shenon 586

Reviews:
Earthquake Damage and Earthquake Insurance (Freeman)
W. S. Bayley 591
A Key to Mineral Groups, Species, and Varieties (Simpson) 592
National Oil Scouts Association of America Year Book, 1932
D. C. Barton 592
The Competitive Position of Coal in the United States 593
Outline of the Geology and Petrography of Surinam (Dutch Guinea) (Ijzerman) .....*W. S. Bayley* 593
Books Received 595

Scientific Notes and News 596

Number 7.

A Massive Sulphide Deposit of Hydrothermal Origin in Serpentine
P. J. Shenon 597
Andalusite and Related Minerals at White Mountain, California
Paul F. Kerr 614
Occurrence and Distribution of Silver in the Silver King Coalition Mines, Utah .....*H. V. Warren and R. W. Loofbourow* 644
An Association of Gold and Uraninite from Chihuahua, Mexico
Philip Krieger 651
Cyanite Deposits of North Carolina .....*J. L. Stuckey* 661

Discussion and Communications:
Mounting Polished Surfaces in Bakelite ....*P. Krieger and P. H. Bird* 675
Origin of Bauxite Deposits .....*C. H. Behre, Jr.* 678

Reviews:
Erdöl: Allgemeine Erdölgeologie und Ueberblick über die Geologie der Erdölfelder Europas (Stutzer) .....*W. S. Bayley* 681
Outline of Methods for Estimating Ground-Water Supplies (Meinzer)
C. H. Behre, Jr. 682
Die Feldspäte und ihre praktische Bestimmung (Chudoba)
W. S. Bayley 682
The Last Cruise of the Carnegie (Paul) 683
Weathering Characteristics of Masonry Materials: A Symposium 683
Books Received 684

Scientific Notes and News 685

Number 8.

Notes on the Oxidation of Jamesonite, Sphalerite, and Tetrahedrite
A. L. Anderson 687
Diatomaceous Earth in Oregon .....*Warren D. Smith* 704

Cartography for Mining Geology .....*Harrison Schmitt* 716
Relation Between Silver Content and Tetrahedrite in Ores at Cananea, Mexico .....*H. V. Warren* 737
Genesis of Deposits of Auriferous Jacutinga .....*E. P. de Oliveira* 744

Discussion and Communications:
The Outlook for Copper (Notman) .....*T. M. Broderick* 750

Reviews:
Jahrbuch des Deutschen Nationalen Komitees für die Internationalen Bohrkongresse: Bd. II .....*D. C. Barton* 758
The Unstable Earth (Steers) .....*W. V. Howard* 759
Das Rhenium (Schröter) .....*W. S. Bayley* 759
Manual of Determinative Mineralogy (Lewis) 760
Geological Society of South Africa, Index to Transactions and Proceedings, vols. 14–31 760
Books Received .....*D. Gallagher* 761

Scientific Notes and News 763

Index, Volume XXVII 765

Contents, Volume XXVII iii